

SECTION 01821

DEMONSTRATION and TRAINING

PART 1 - GENERAL

1.01 COORDINATION

- A. Coordinate schedule of demonstration and training with Designer and Owner's personnel for all installed equipment and systems.
- B. If conditions (such as season of year) do not allow for a complete demonstration or training of equipment and systems operation during one meeting session; then coordinate a schedule that shall provide a sufficient number sessions within the warranty period.

1.02 SUBMITTALS

- A. Submit an agenda for instruction of Owner's personnel on installed equipment to Designer not less than one week prior to the scheduled instruction. State number of hours of training time to be provided for each agenda item. State the names and qualifications of persons to provide instruction.
- B. For each training event performed, submit two (2) video cassette copies documenting the training event with Project Data Binders. Submit each cassette in a standard protective hard plastic VHS videotape container. Label both the cassette *and* the container to include the full project title and short description of training documented.
- C. Submit lists of persons witnessing equipment and systems demonstration, and persons receiving operating instruction. Include copy of lists in the Project Data Binders.
- D. Submit lists of spare materials and parts furnished to Owner. Include on lists a written assertion of receipt by Owner's personnel responsible for receiving the materials and parts.
- E. Submit lists of Contractor's Service Personnel who are to be contacted if problems arise with installed equipment or systems. Personnel named must be familiar with installed equipment and systems. Submit updated lists through the duration of the Warranty period, as needed, if Contractor's Service Personnel changes.

PART 2 - PRODUCTS

2.01 VIDEOTAPE

- A. Format: Provide "standard VHS" format video cassette.
 Grade: Provide "Professional" grade videotape.

PART 3 - EXECUTION

3.01 GENERAL

- A. Conduct initial demonstration and training as soon as practicable upon installation, and prior to Substantial Completion inspection.
- B. Substantial Completion shall not be certified, nor shall Owner be required to assume responsibility for operating, maintaining, or insuring system, prior to initial demonstration and training.

3.01 DEMONSTRATION

- A. Demonstrate operation of installed equipment and systems to Designer and to Owner's representative. All dependent systems must be demonstrated as being operationally coordinate (such as energy management controls coordinant with mechanical equipment.)
- B. Demonstration shall be complete and detailed; referencing manufacturer's printed operating and maintenance instructions, and evidencing all required design specifications.

3.02 TRAINING

- A. All training shall be specific to the actual-installed equipment and systems, and be performed by persons approved by equipment manufacturer(s) and/or approved by Designer to conduct such training.
- B. Instruct Owner's personnel with overall equipment and systems assembly and function; using assembly drawings and diagrams which are specific to the actual-installed equipment and systems.
- C. Instruct Owner's personnel in operation, adjustment, and maintenance of equipment and systems; using the manufacturer's printed operating and maintenance data that is specific to the actual-installed equipment and systems as the basis of instruction.
- D. Verify that Owner's personnel has received all spare materials and parts required to be furnished, and provide instruction in replacement procedures.
- E. Videotape the entire training event:
 - 1. Upon initiating videotaping of an event, video camera operator shall announce as a part of the sound recording the date, time, and event being videotaped. Operator may take full liberty to provide a narration of the event being taped.
 - 2. Videotaping shall be of sufficient quality to provide overall undistorted shading, contrast and focus, and to provide an adequate degree of magnitude so that the event being taped can be clearly discerned by the viewer.
 - 3. Upon Designer approval, an equipment manufacturer-prepared training videotape which complies to the requirements of this section may be substituted in lieu of videotaping the actual training session provided for that particular equipment.
- F. Approximately 30 days from initial training event, and subsequent other training events, if required, provide a follow-up training event with Owner's personnel; addressing questions and concerns which have arisen since the initial training (no videotaping is required.)

END OF SECTION

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